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M312m

LIST OF DIAGRAMS AND PLANS ACCOMPANYING EXPERT'S REPORT.

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DIAGRAM 1 Experimental Filters.
2 Diagram Connections.
3 Plan of Septic Tanks.

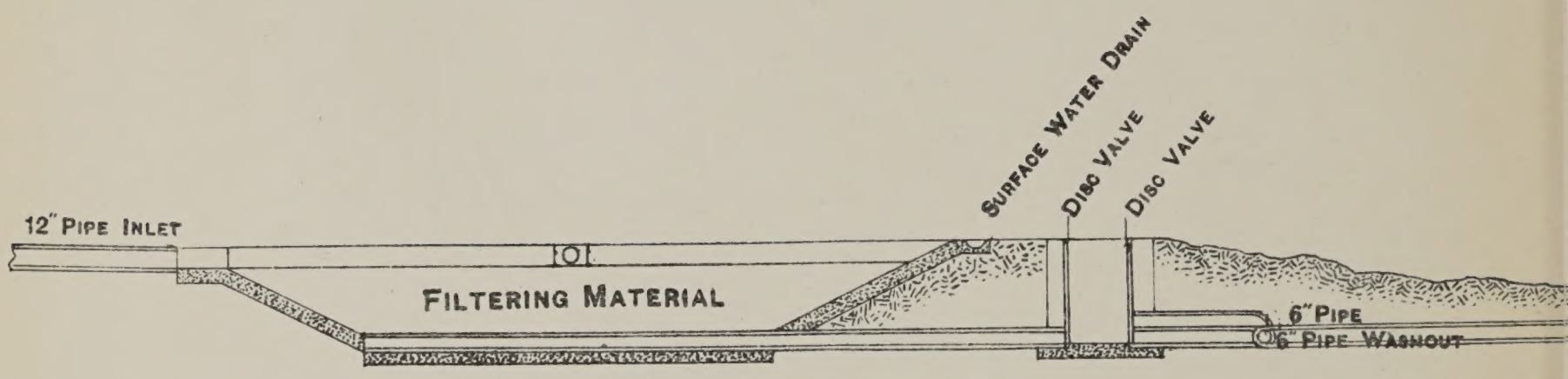
PHOTOGRAPH 1 Bacteria Beds A and B.
2 Septic Installation.

DIAGRAM 4 1898, Oxygen, 4 hours Double Filtration.
5 1899 ,, ,, ,, ,,
6 ,, ,, ,, Weekly Averages.
7 1898, Albuminoid Ammonia Double Filtration.
8 1899, ,, ,, ,, ,,
9 ,, ,, ,, Weekly Averages.
10 1898, Incubator Test Double Filtration.
11 1899, ,, ,, ,, Sewage.
12 ,, ,, ,, ,, Final Filter.
13 {Septic Tank Effluent / Average Filter ,,} Septic System.
14 Septic System, Oxygen and Albuminoid Ammonia.
15 1898, Single Filtration, Oxygen 4 hours, Weekly Averages of Daily Analysis.
16 ,, ,, Alb. Amm. ,,
17 ,, ,, Incubator Test ,,
18 1899, Single Filtration, Oxygen 4 hours and Albuminoid Ammonia, Weekly Averages.
19 Single Filtration, 1899, Incubator Test.
20 Storm Diagram.
21 Incubator Test Double Filtration, 1899, Special Samples.
22 Ship Canal Mixtures.
23 Weekly Averages of Incubator Test.

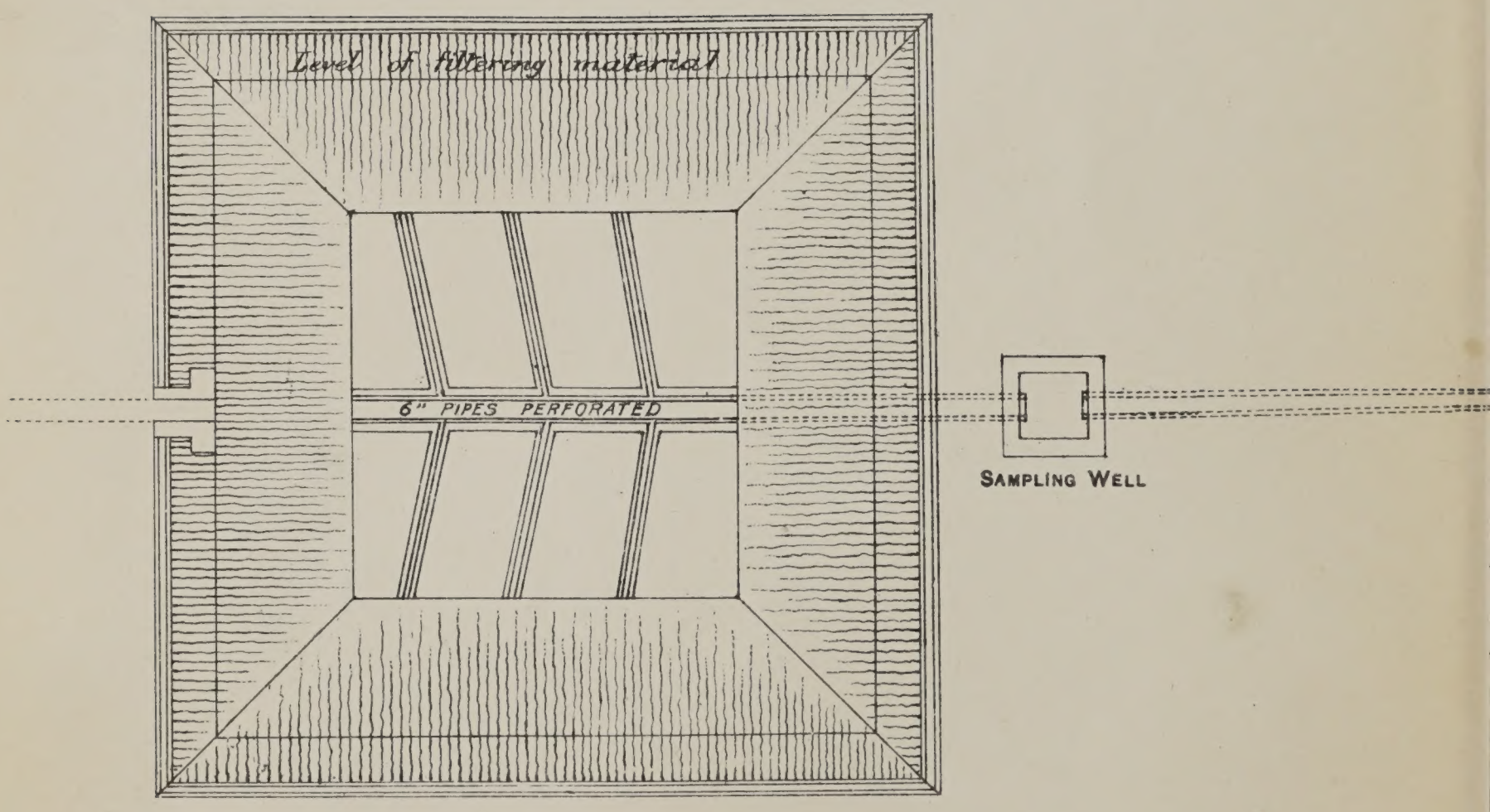
1

MANCHESTER C

EXPERIMENTA



HIGH LEVEL FILTER



Plan without filtering material

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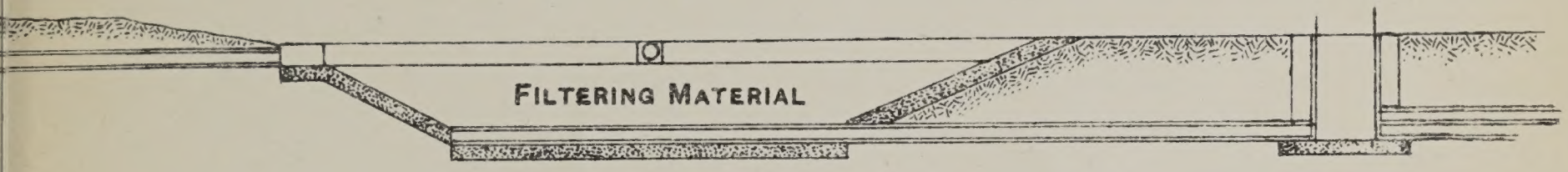
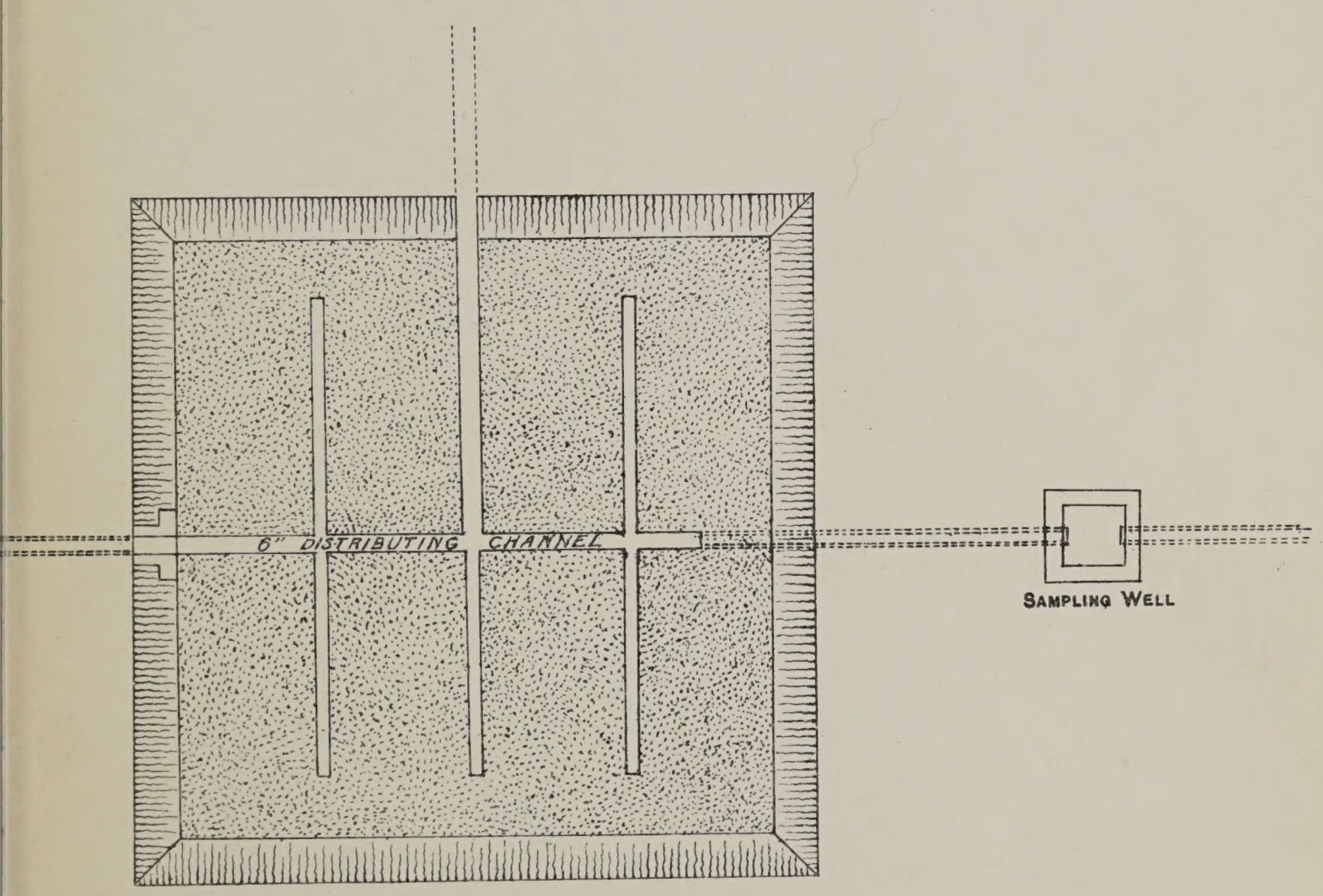
DIAGRAM 1

ORPORATION
FILTERS

LOW LEVEL FILTER





Plan shewing filtering material

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EXPERIMENTA

Diagram shewing pos

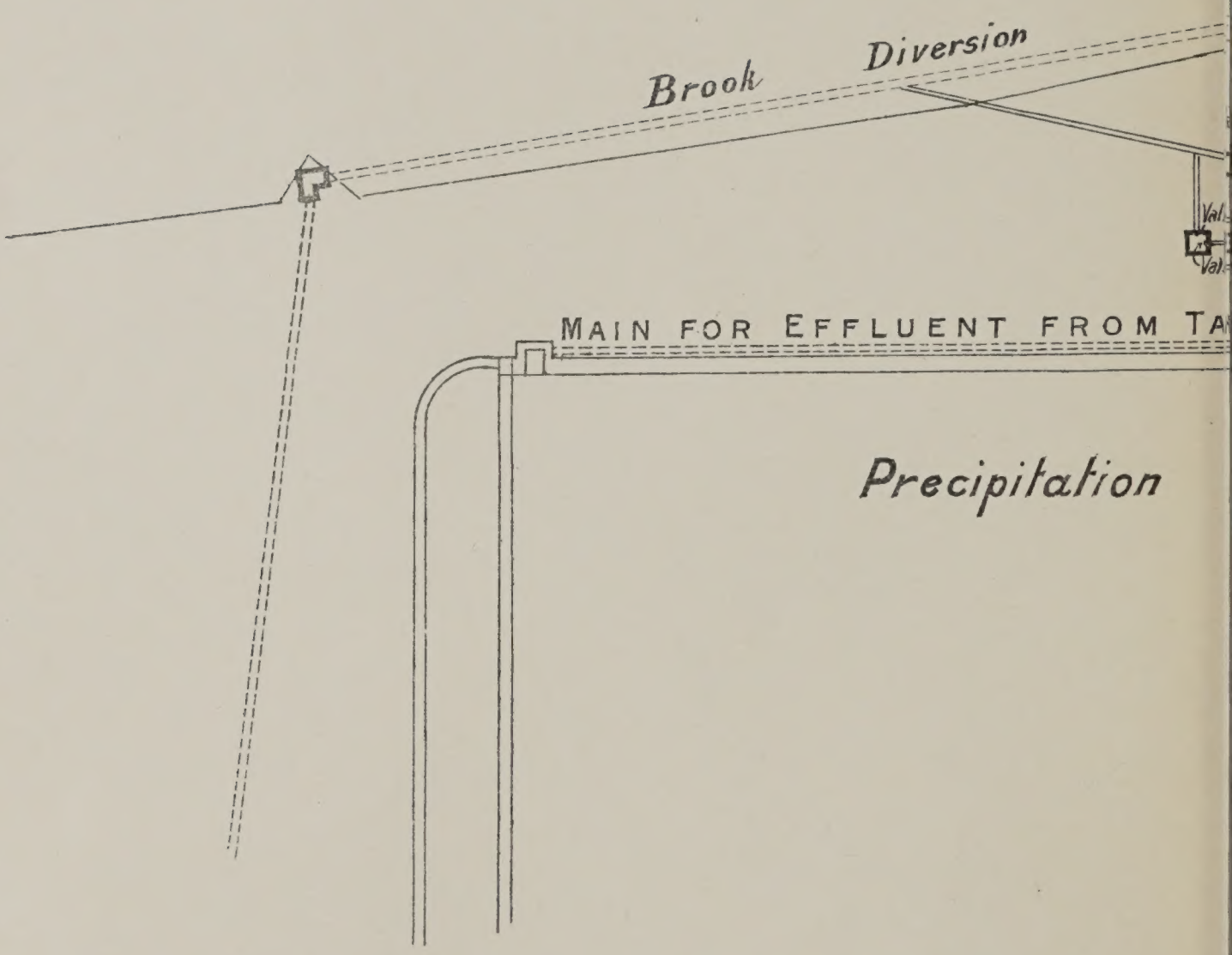
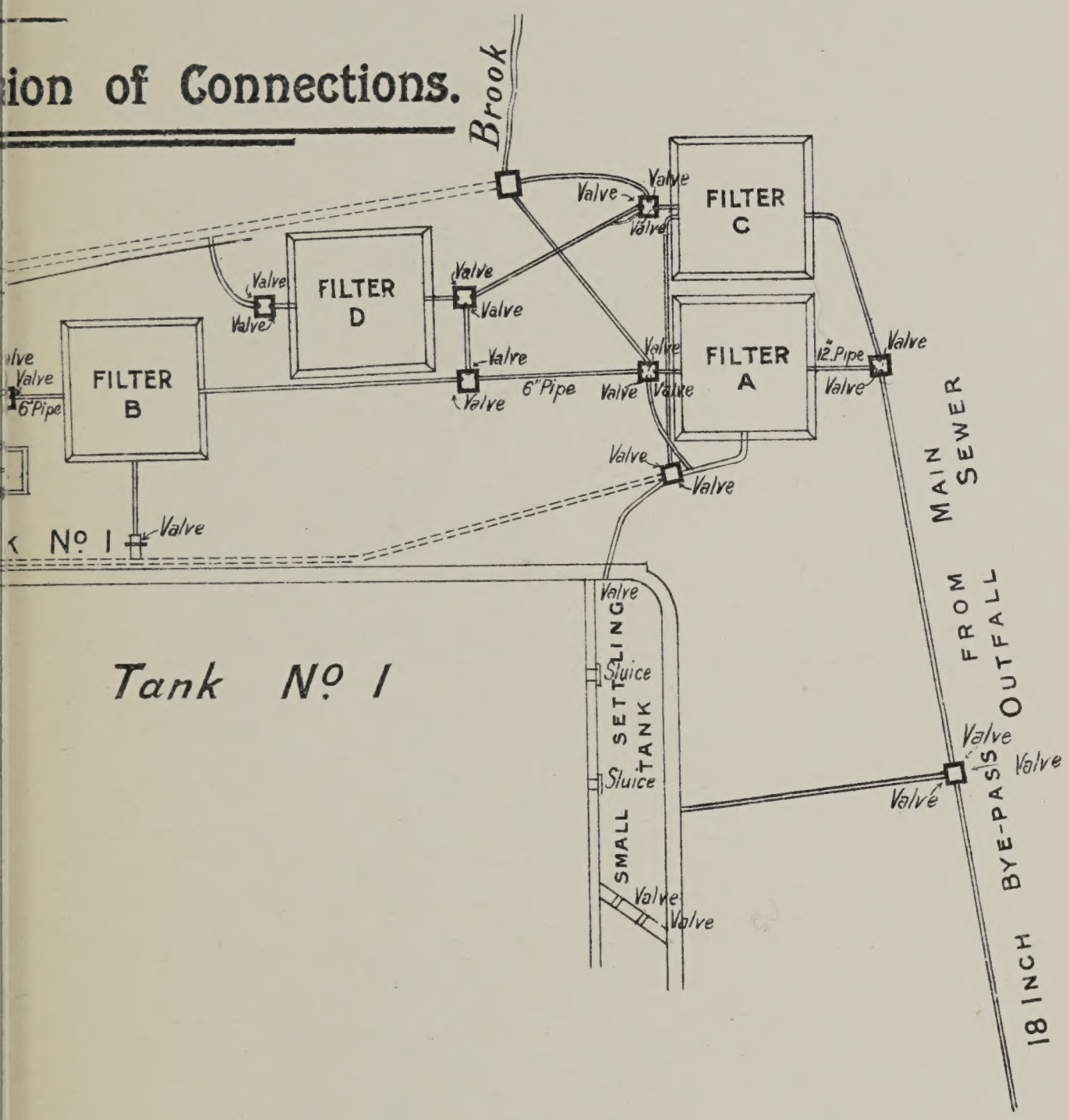


DIAGRAM 2

L FILTERS.

ion of Connections.



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GENERAL VIEW SHEWING

Photograph 1.

ACTERIA BEDS A AND B.

VIEW SHEWING SE

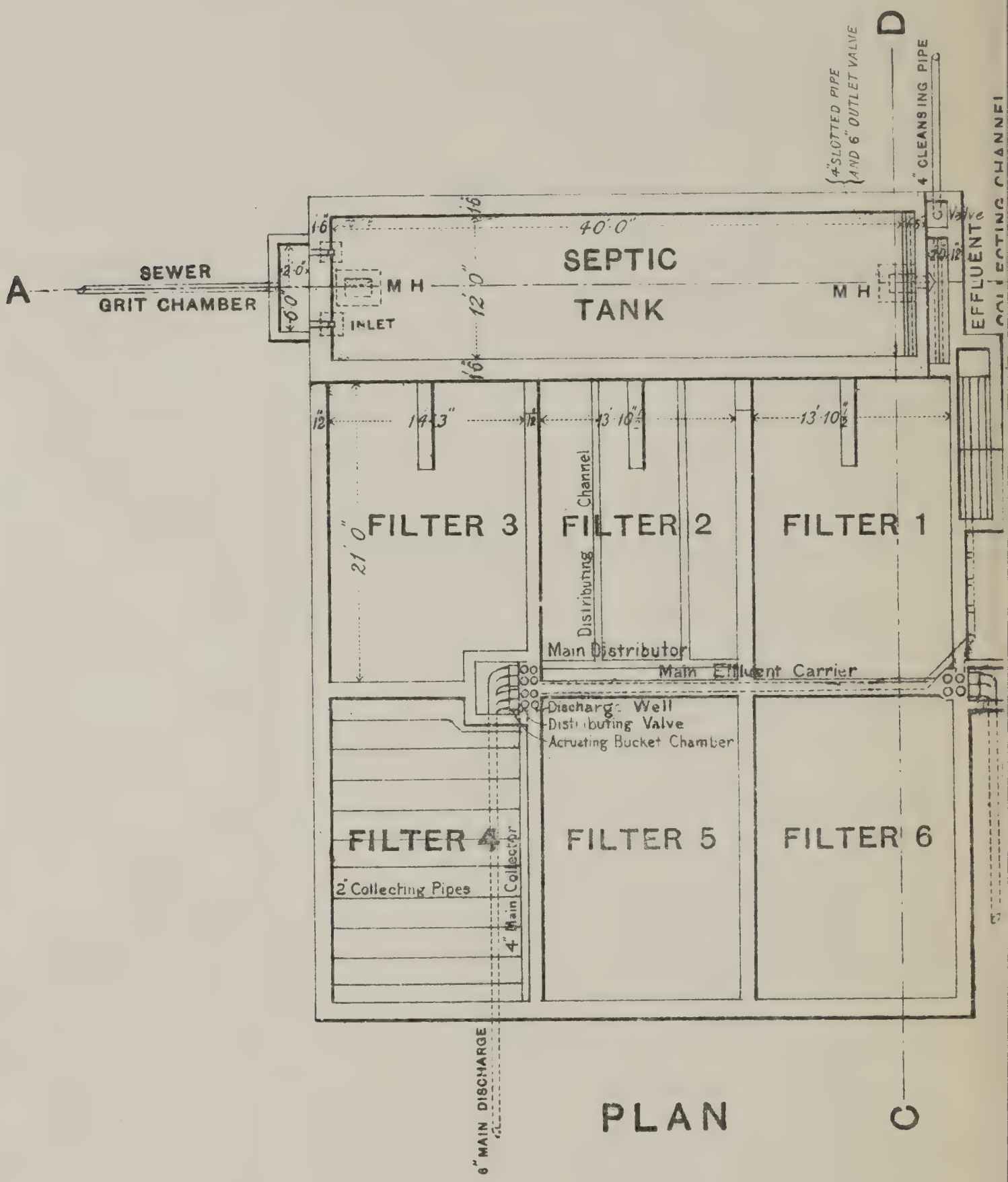
Photograph 2.

IC INSTALLATION.

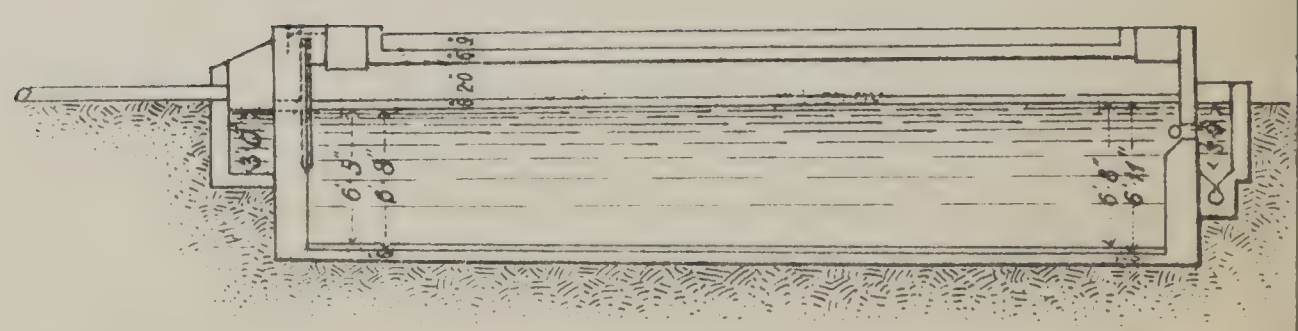
3

THE SEPTIC TANK SYSTEM OF SEW

MANCHESTER EXPERIMENTAL



PLAN



SECTION AB

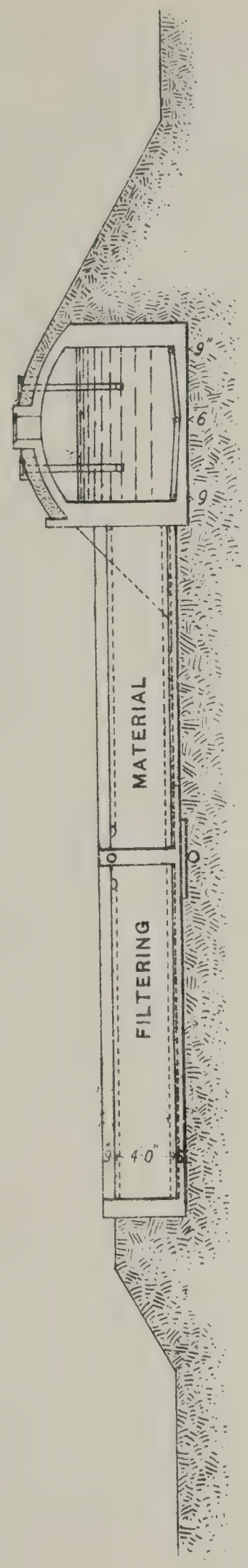
DIAGRAM 3

\GE TREATMENT (Patent)

NSTALLATION.

— B

JGE CHAMBER



SECTION CD

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4

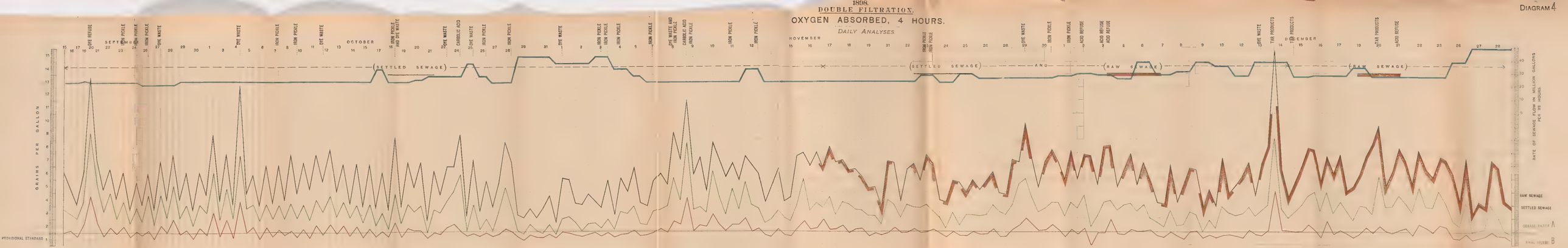
1898.

DOUBLE FILTRATION.

OXYGEN ABSORBED, 4 HOURS.

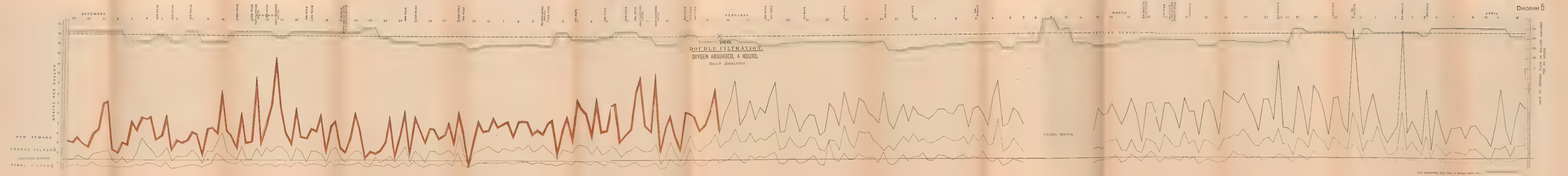
DAILY ANALYSES.

DIAGRAM 4

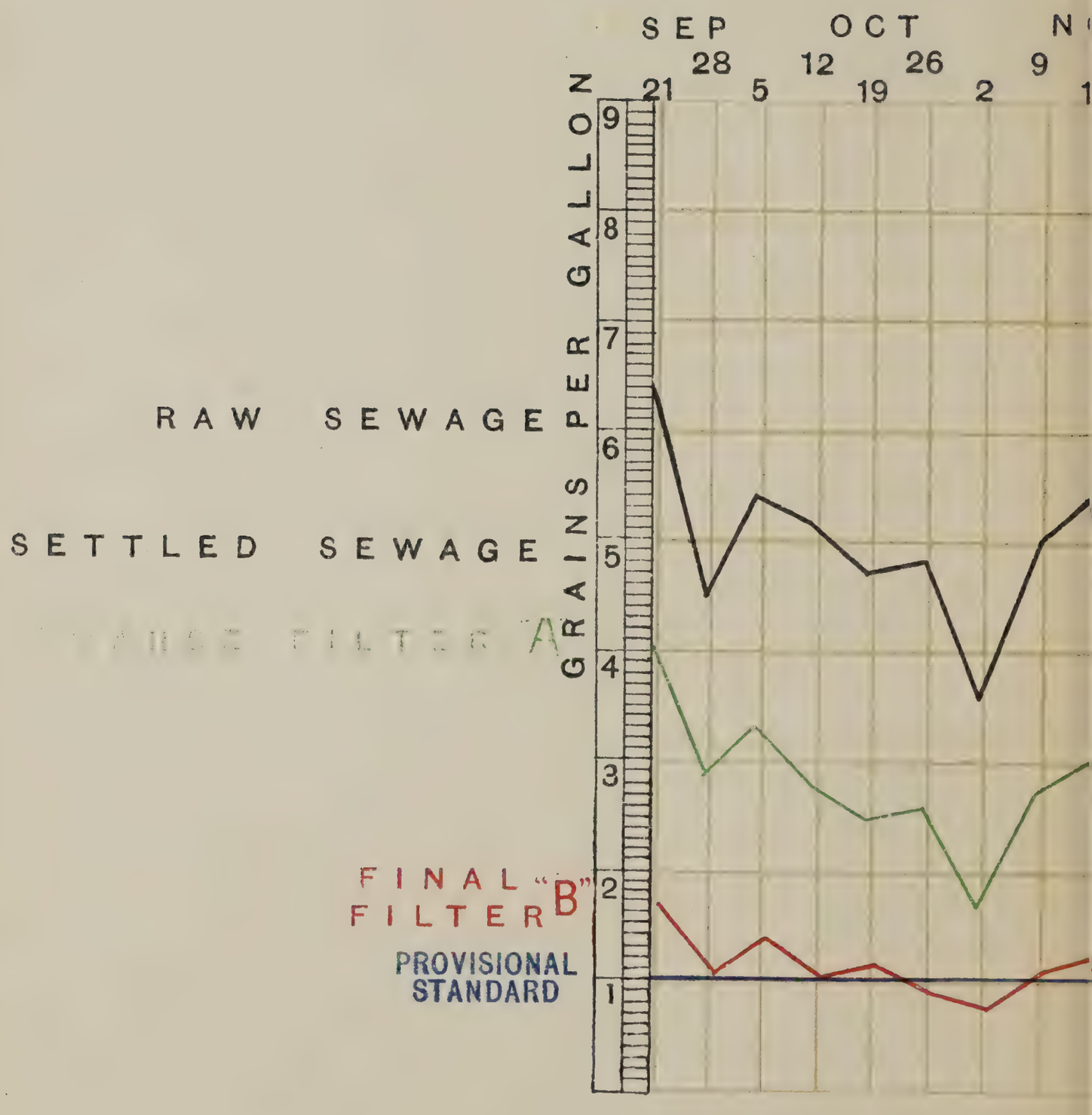


Line representing daily flow of Sewage shown thus

DIAGRAM 5


DECEMBER
FEBRUARY
MARCH
APRIL
1898.
DOUBLE FILTRATION.
OXYGEN ABSORBED, 4 HOURS.
DAILY ANALYSES
SETTLED SEWAGE
FILTERS RESTING
GRAINS PER GALLON
RAW SEWAGE
COARSE FILTERS
PROVISIONAL STANDARD
FINAL FILTERS
RATE OF SEWAGE FLOW IN MILLION GALLONS PER 24 HOURS
Line representing Daily Rate of Sewage Inland Flow

6


SEP
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GRAINS PER GALLON
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6
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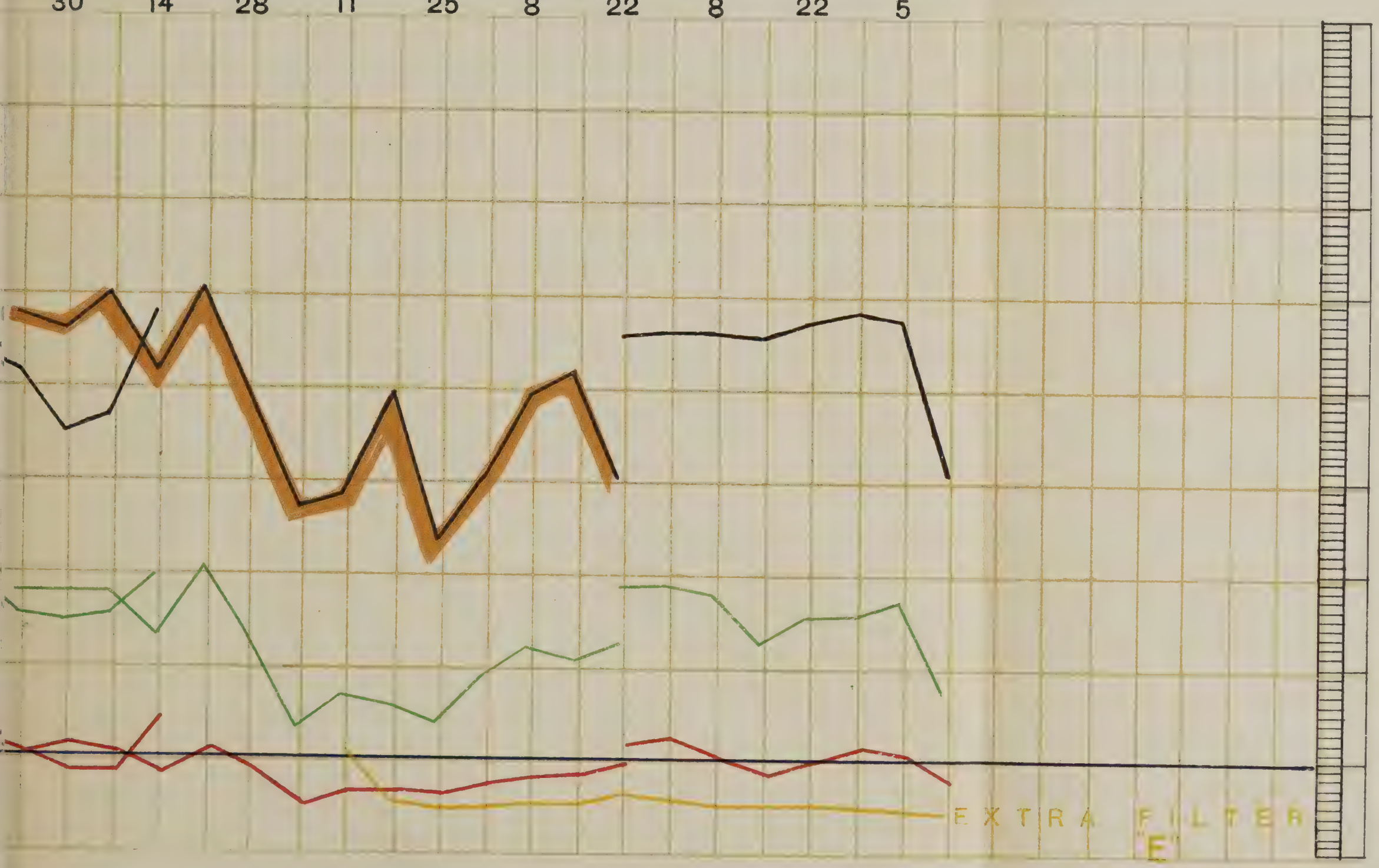
1
RAW SEWAGE
SETTLED SEWAGE
FINAL "B" FILTER
PROVISIONAL STANDARD

WEEKLY AVERAGES OF

OXYGEN ABSORBED, 4 HOURS.

DIAGRAM 6



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7

1898.

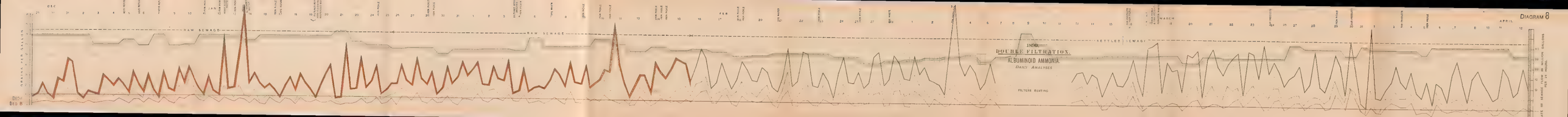
DOUBLE FILTRATION.

ALBUMINOID AMMONIA.

DAILY ANALYSES.

Line representing daily flow of Sewage shown thus

DIAGRAM 8

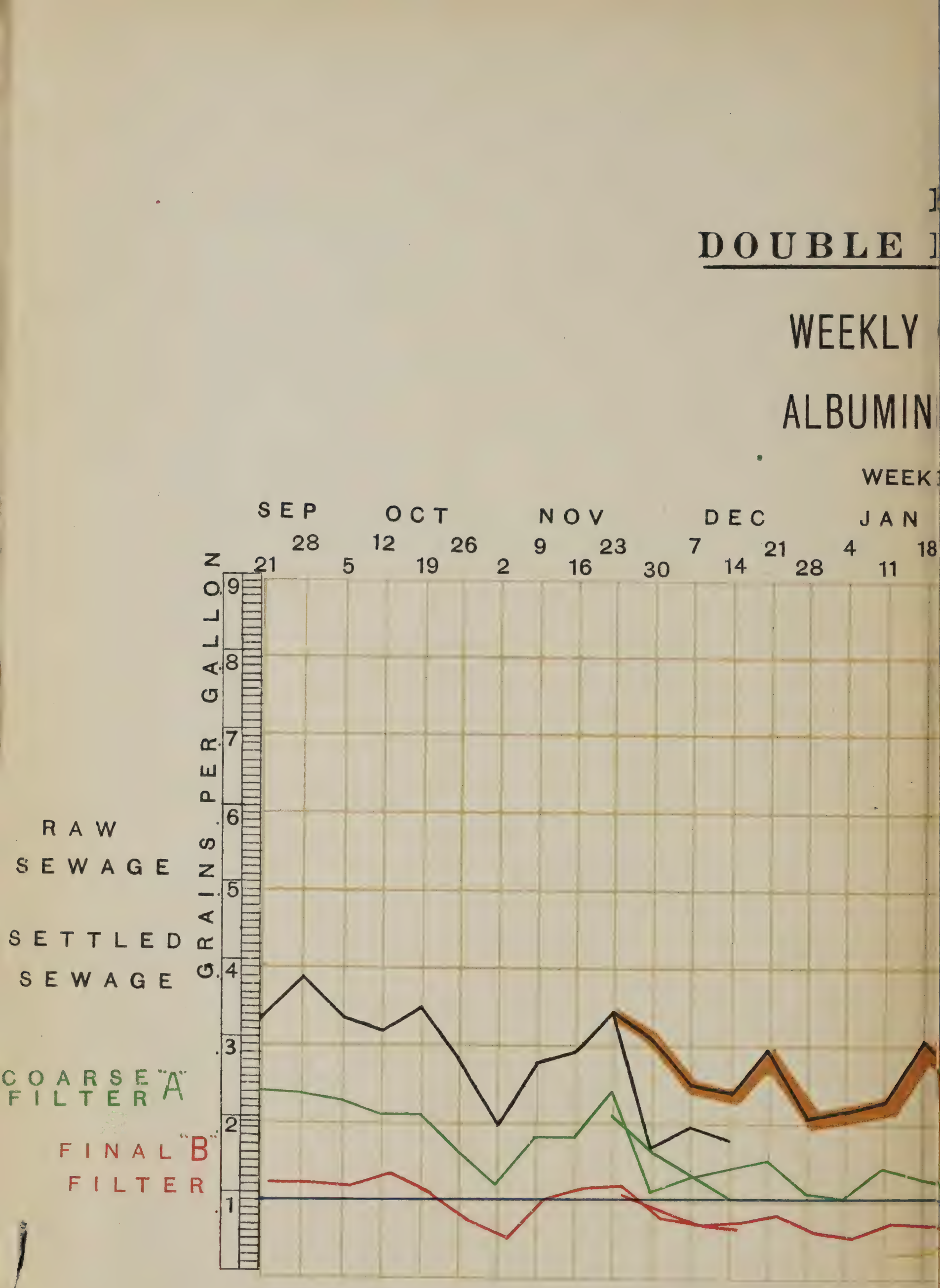

DEC
JAN
FEB
MARCH
APRIL
RAW SEWAGE
RAW SEWAGE
SETTLED SEWAGE
1898.
DOUBLE FILTRATION.
ALBUMINOID AMMONIA.
DAILY ANALYSES
FILTERS RESTING
GRAINS PER GALLON
PARTS PER MILLION GALLONS
BED C
BED B

DOUBLE

WEEKLY

ALBUMIN

WEEK



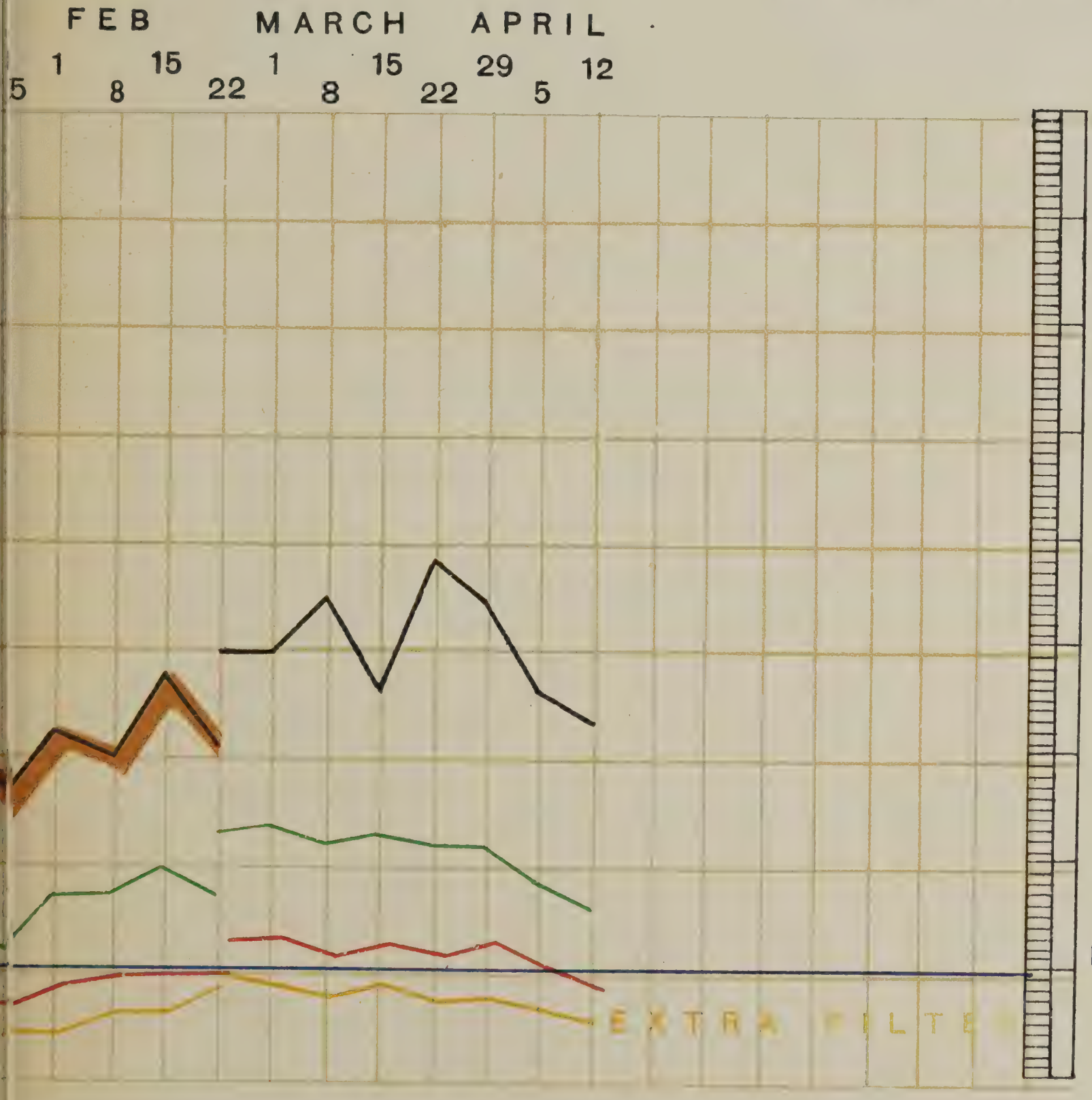
399.

ILTRATION.

VERAGES OF

D AMMONIA.

DIAGRAM 9



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10

DIAGRAM 10

1898.

DOUBLE FILTRATION.

INCUBATOR TEST.

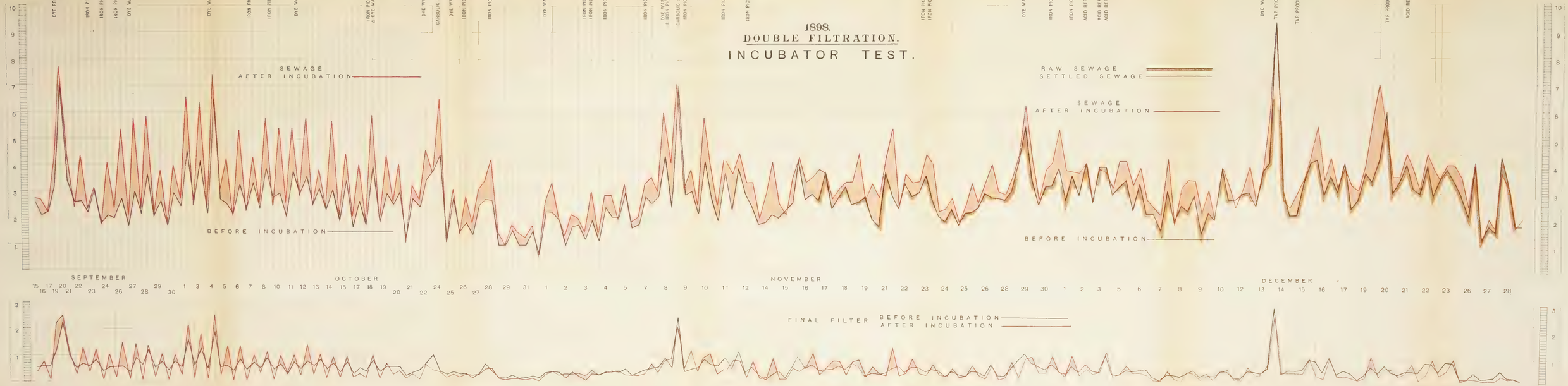
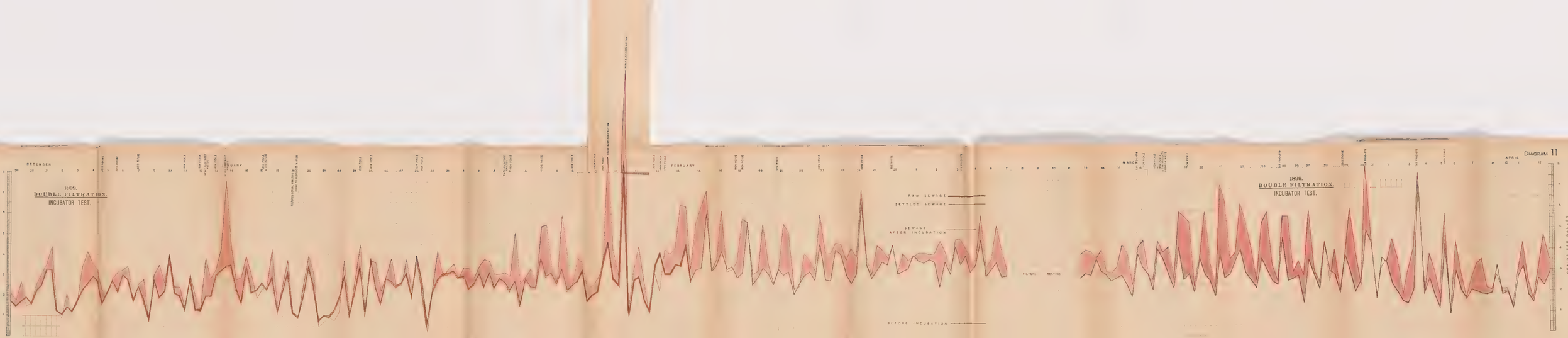


DIAGRAM 11

1889.
DOUBLE FILTRATION.
INCUBATOR TEST.

RAW SEWAGE
SETTLED SEWAGE
SEWAGE AFTER INCUBATION
BEFORE INCUBATION
FILTERS RESTING

GRAINS PER GALLON



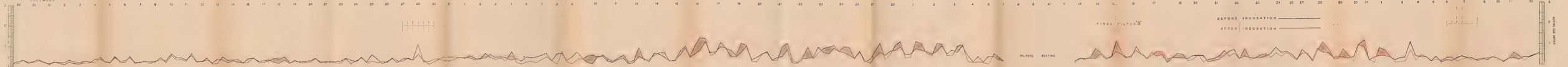
12

1899.

DOUBLE FILTRATION.

INCUBATOR TEST.

DIAGRAM 12



13

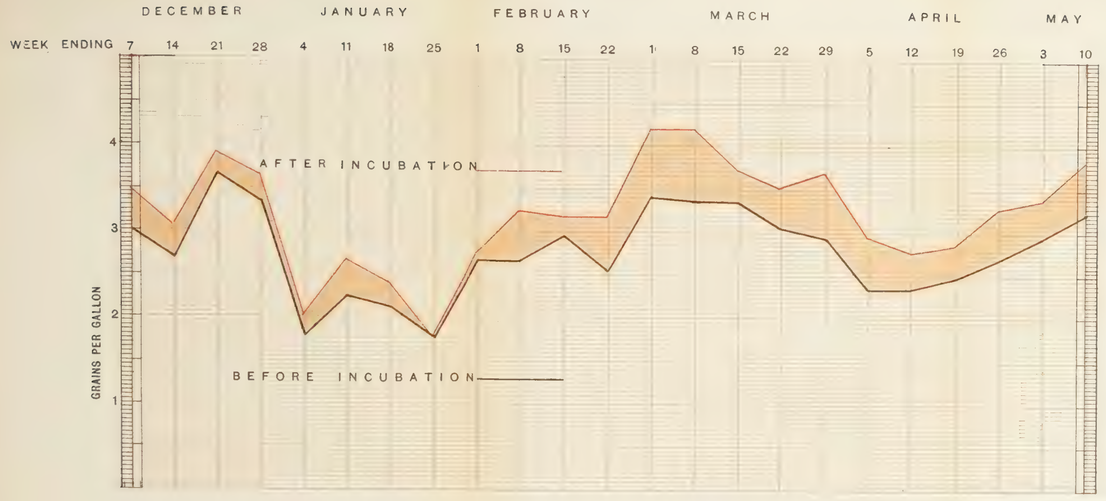
1899.

SEPTIC SYSTEM.

INCUBATOR TEST.

3 MINUTES OXYGEN ABSORBED.

SEPTIC TANK EFFLUENT.

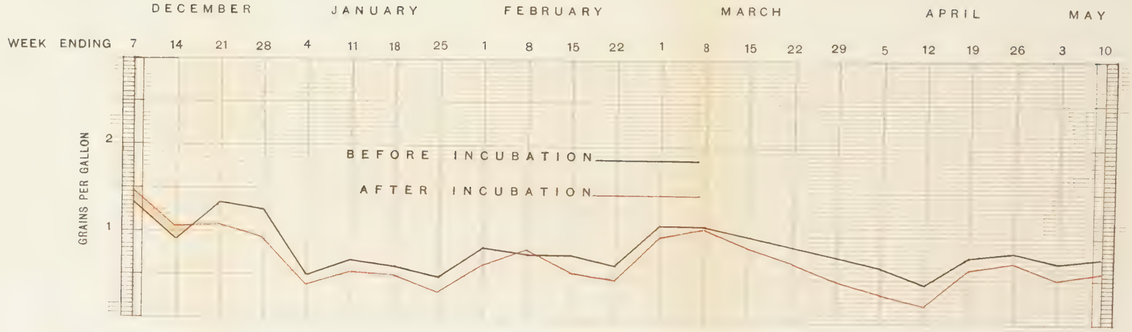


INCUBATOR TEST.

3 MINUTES OXYGEN ABSORBED.

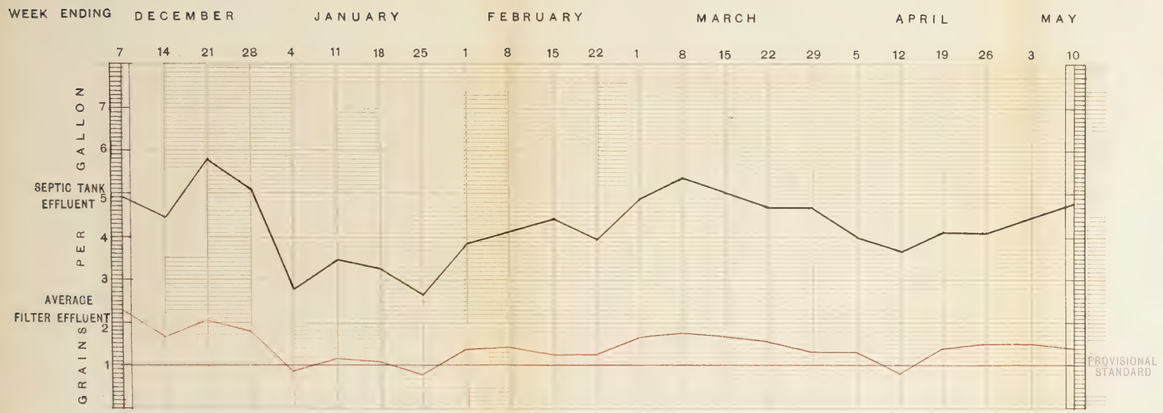
AVERAGE FILTER EFFLUENT.

DIAGRAM 13



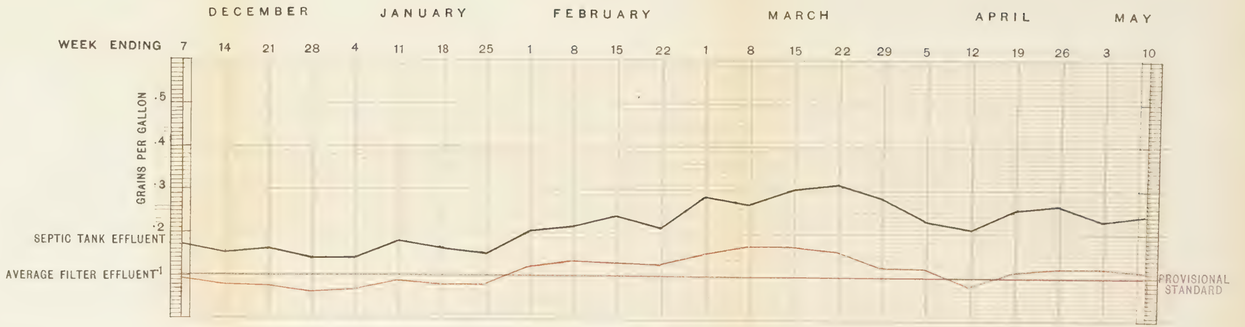
14

OXYGEN ABSORBED, 4 HOURS



ALBUMINOID AMMONIA.

DIAGRAM 14



15

1898.

SINGLE FILTRATION.

OXYGEN ABSORBED, 4 HOURS.

WEEKLY AVERAGES OF DAILY ANALYSES.

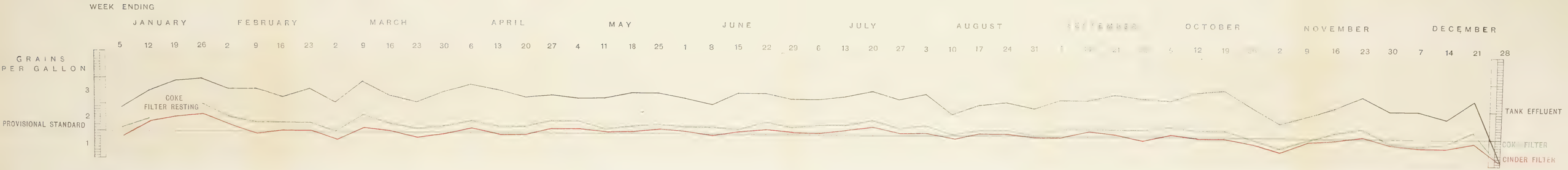
16

1898.

SINGLE FILTRATION.

ALBUMINOID AMMONIA.

WEEKLY AVERAGES OF DAILY ANALYSES.



17

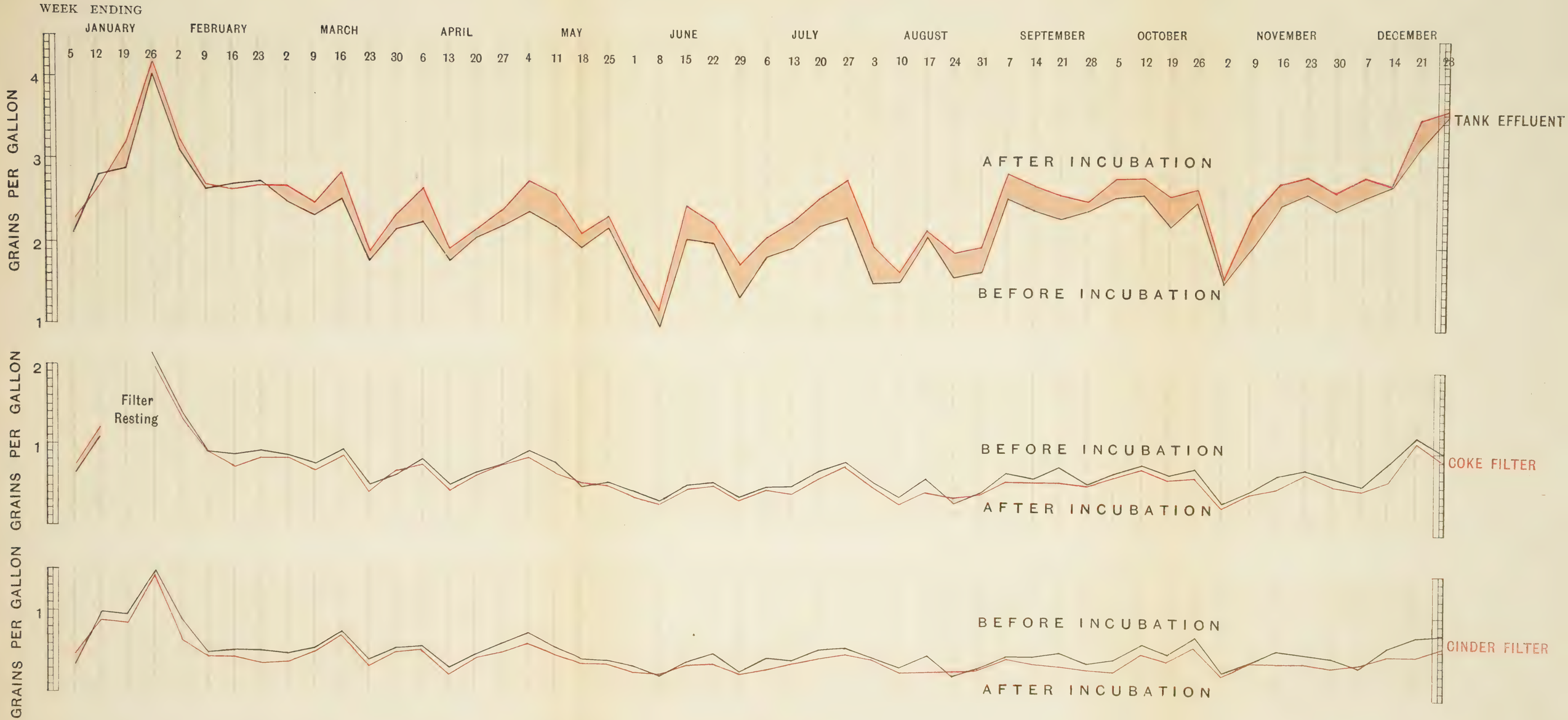
DIAGRAM 17

1898.

SINGLE FILTRATION.

INCUBATOR TEST—OXYGEN ABSORBED, 3 MINUTES.

Weekly Averages of Daily Tests:--



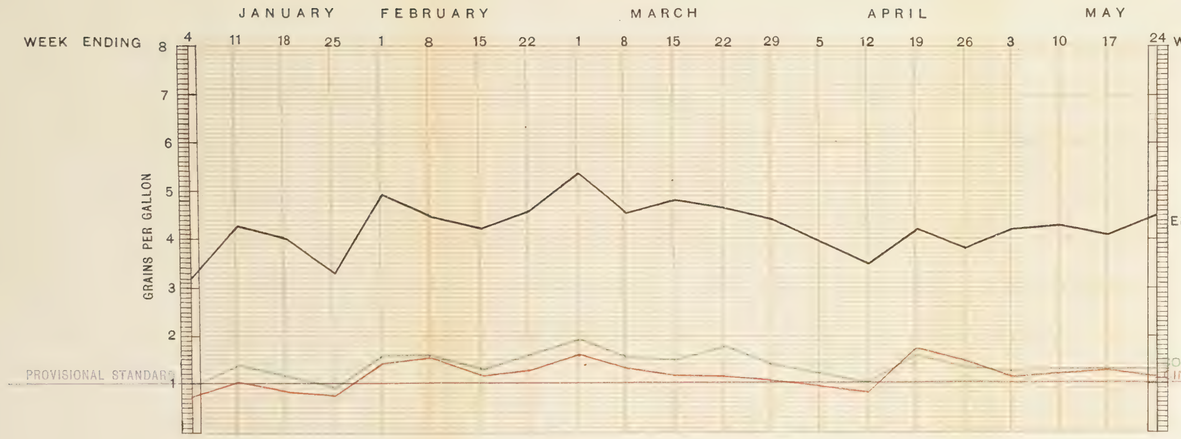
1899.

SINGLE FILTRATION.

(ROSCOE FILTERS.)

Weekly Averages of Daily Analyses

OXYGEN ABSORBED, 4 HOURS



ALBUMINOID AMMONIA.

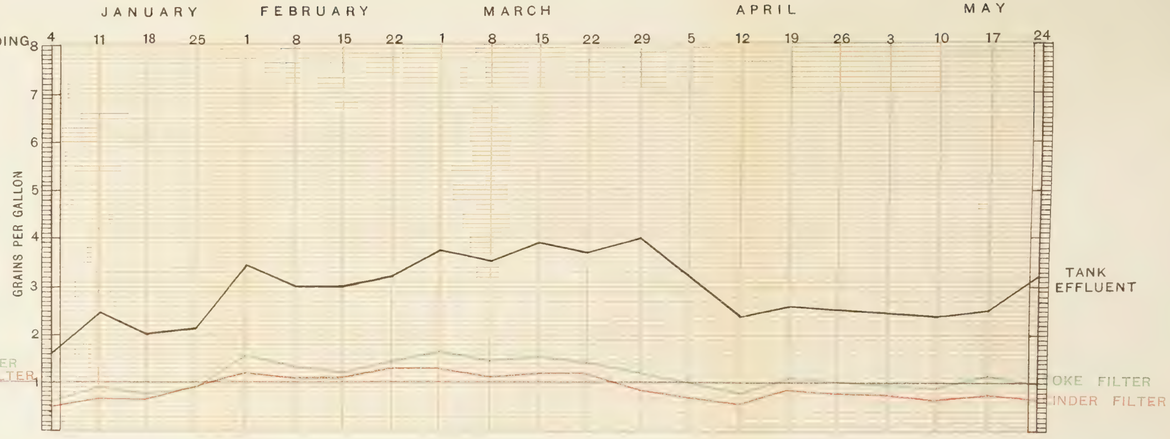


DIAGRAM 18

19

1899.

SINGLE FILTRAT

(ROSCOE FILTERS.)

INCUBATOR TEST. OXYGEN ABSOR

Weekly Averages of Dai

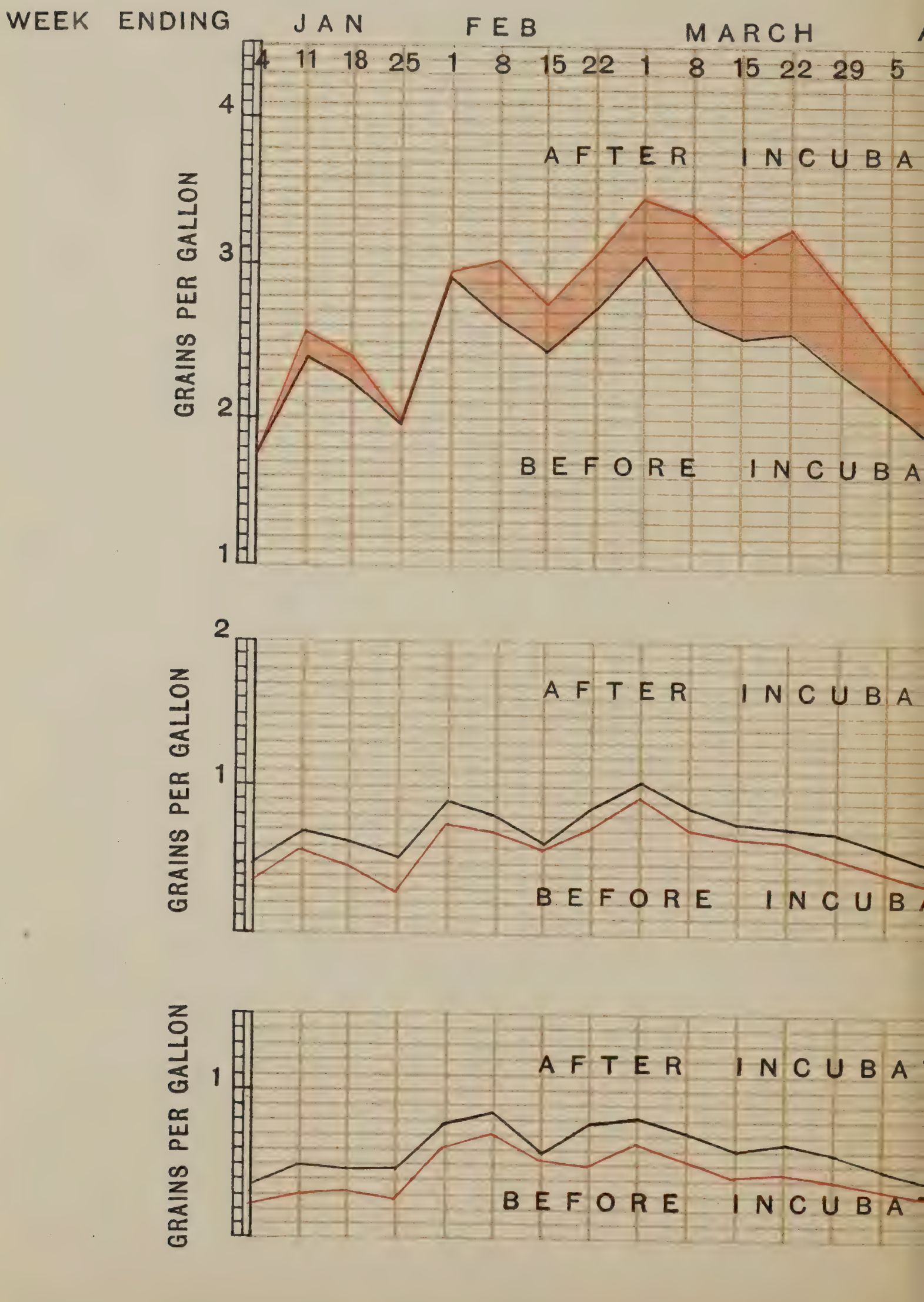


DIAGRAM 19

ON.

ED, 3 MINUTES.

TESTS.

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STORM,

Light Rain fell 8-30 a.m. to 10 a.m. He

Last Day

Samples of Sewage ta

Total

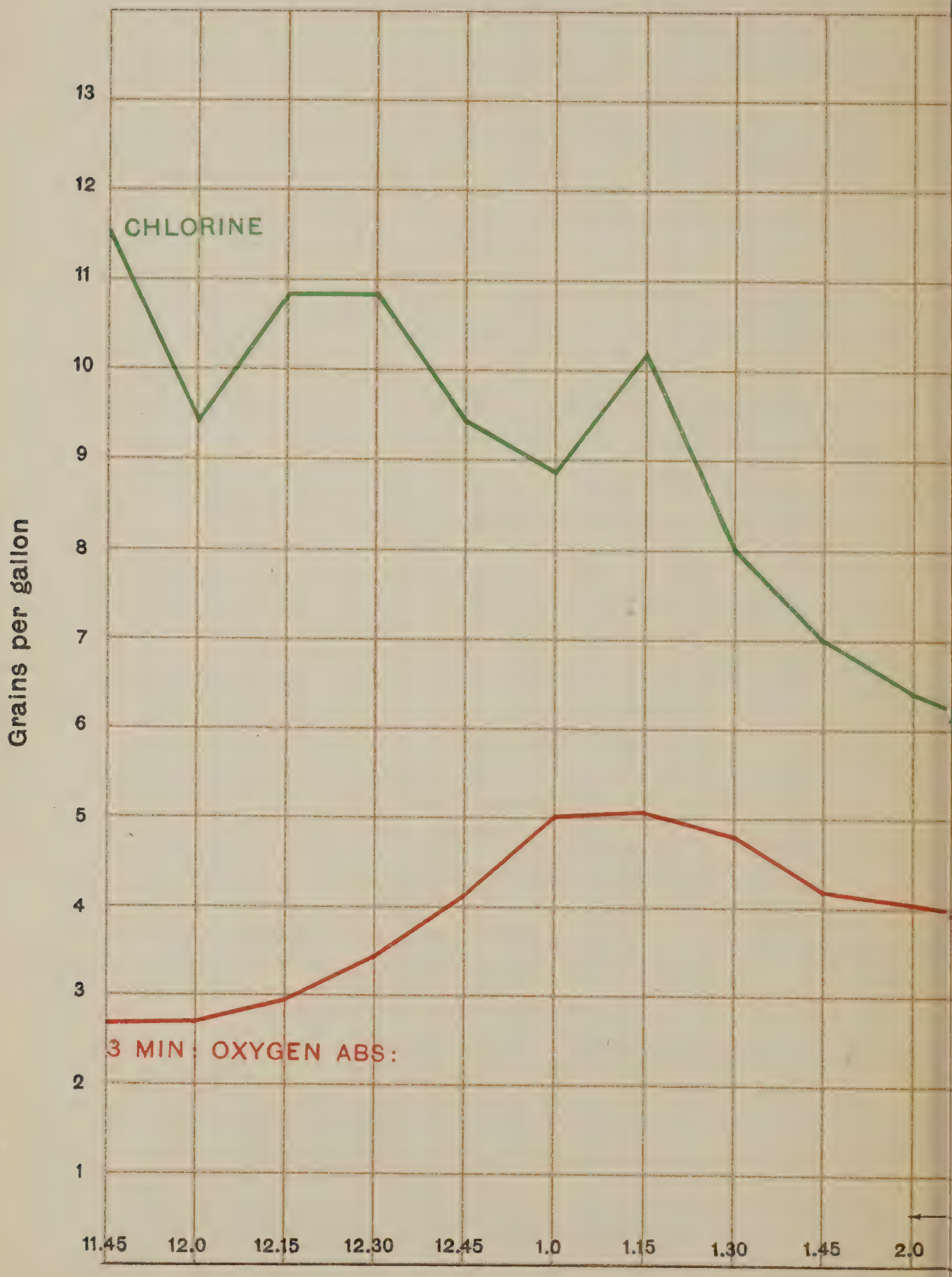

DIAGRAM 20

Iay, 9th, 1899.

y Rain fell 10-30 a.m. to 11-30 a.m. in the City.

f Rain, May 1st.

en at Intervals of 15 Minutes.

ainfall = ·26.

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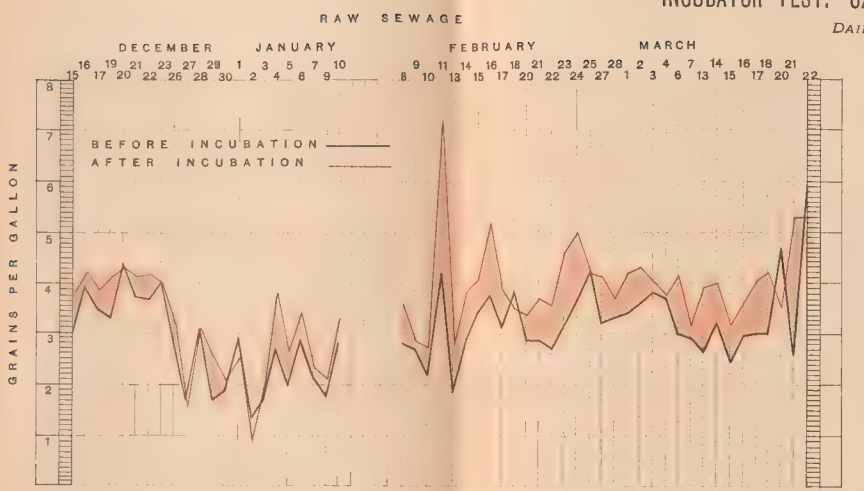
1899.

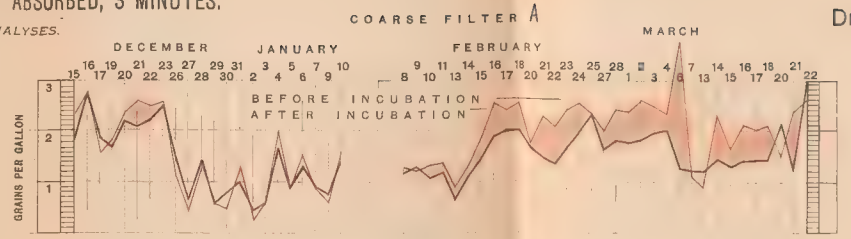
DOUBLE FILTRATION.

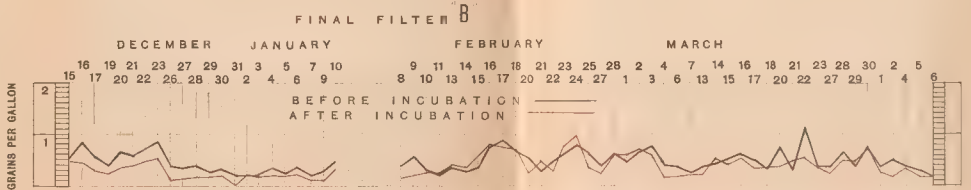
INCUBATOR TEST. OXYGEN ABSORBED, 3 MINUTES.

Daily Analyses.

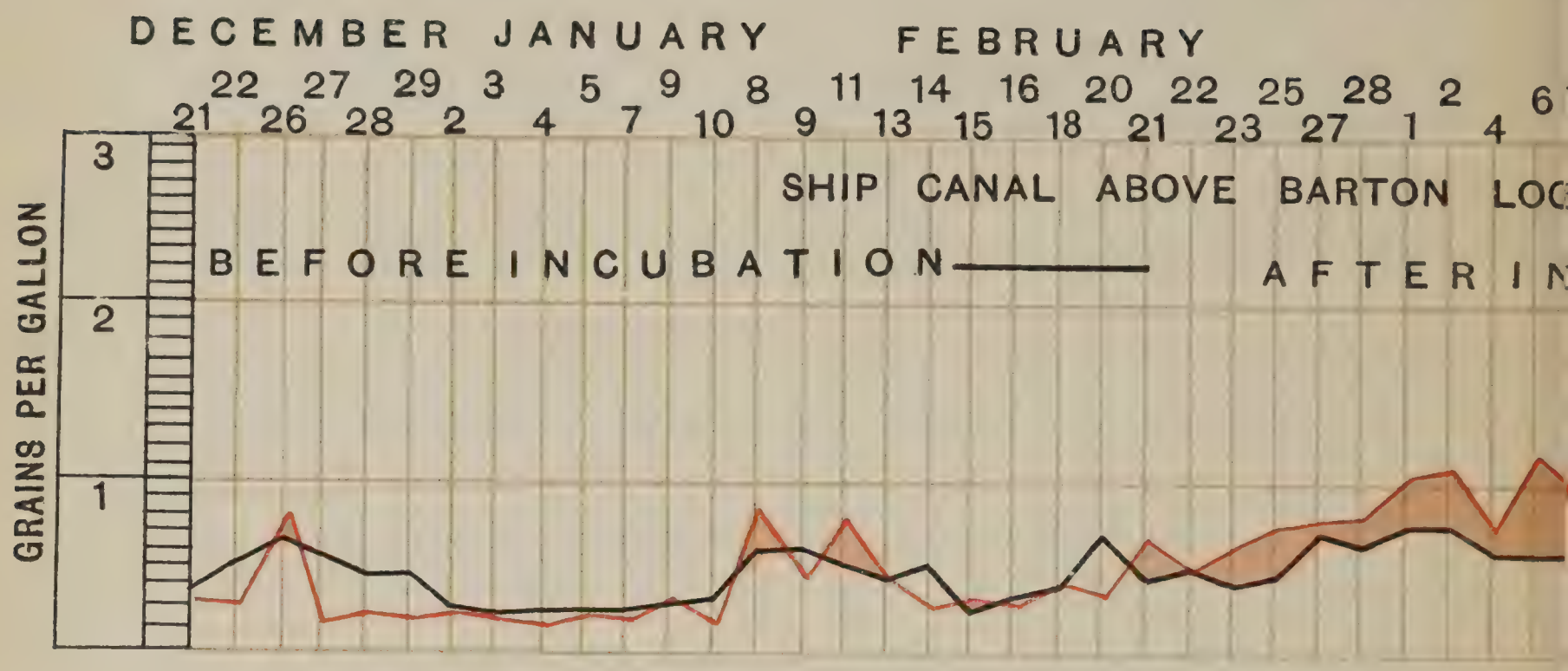
DIAGRAM 21







INCUBATOR TEST. OXYGEN A


DECEMBER JANUARY FEBRUARY
21 22 26 27 28 29 2 3 4 5 7 8 9 10 11 13 14 15 16 18 20 21 22 23 25 27 28 1 2 4 6
GRAINS PER GALLON
3
2
1
SHIP CANAL ABOVE BARTON LOC
BEFORE INCUBATION
AFTER IN

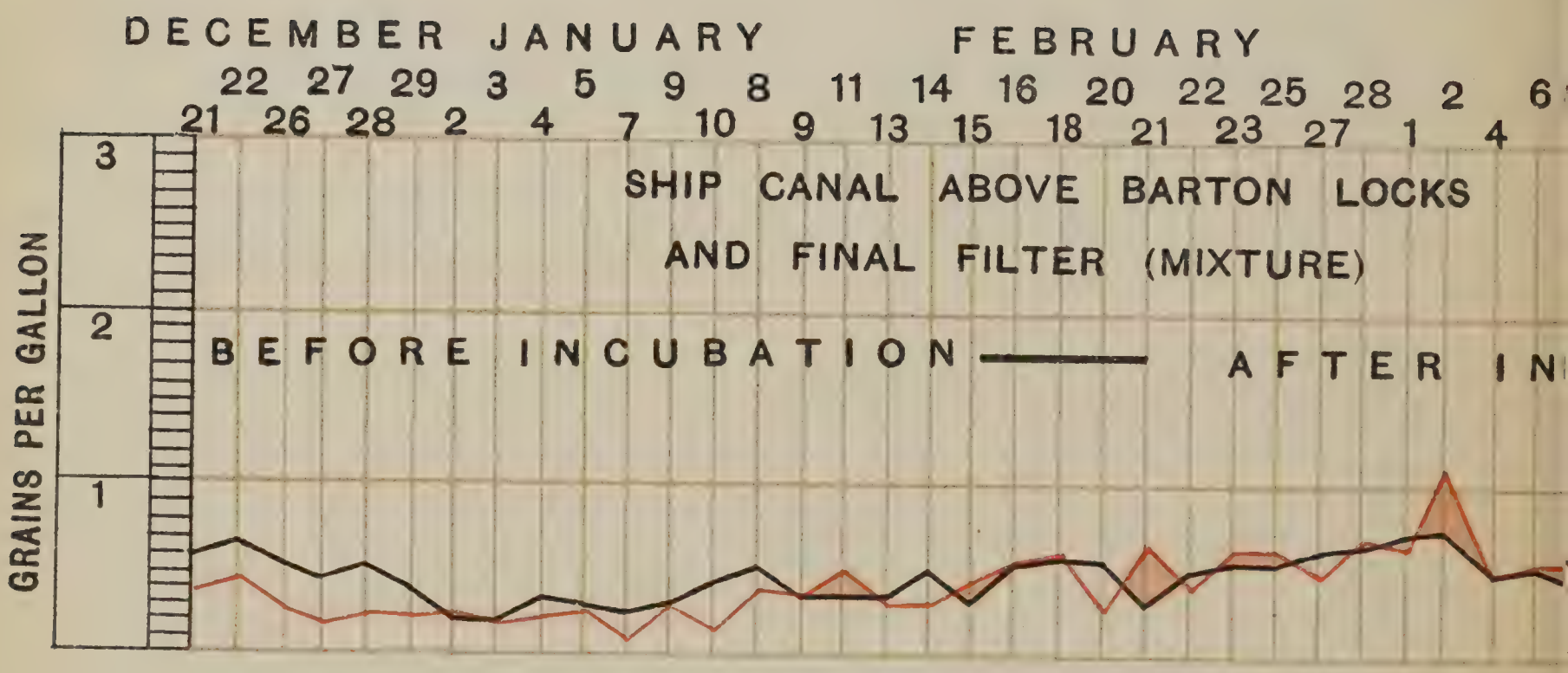
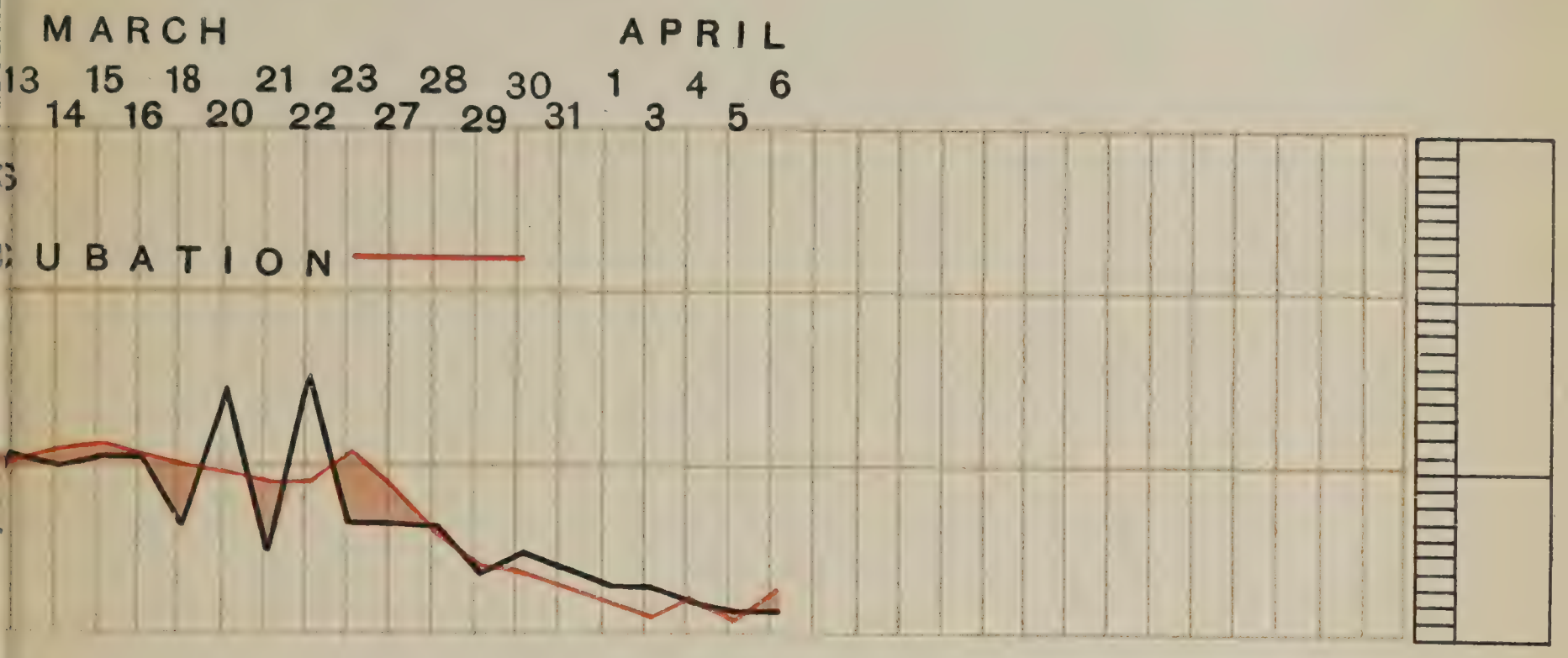
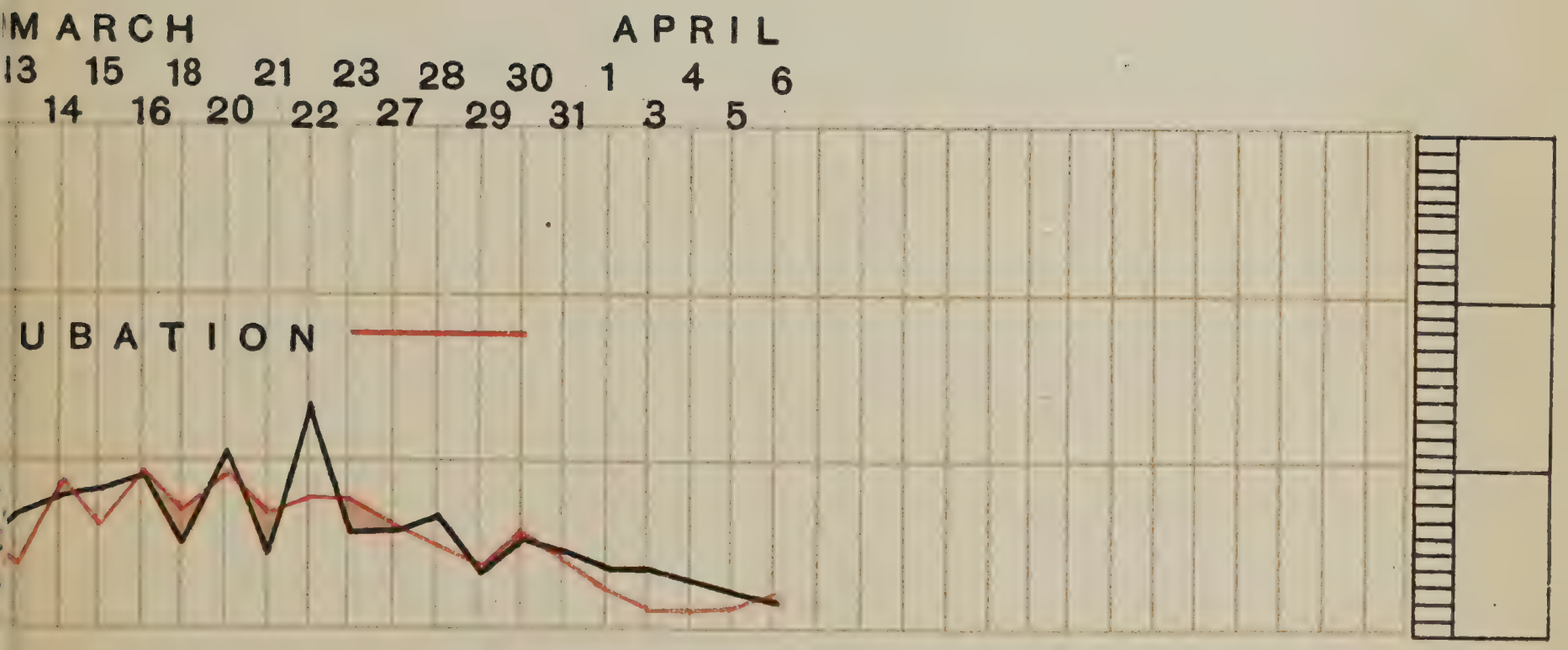

DECEMBER JANUARY FEBRUARY
21 22 26 27 28 29 2 3 4 5 7 8 9 10 11 13 14 15 16 18 20 21 22 23 25 27 28 1 2 4 6
GRAINS PER GALLON
3
2
1
SHIP CANAL ABOVE BARTON LOCKS
AND FINAL FILTER (MIXTURE)
BEFORE INCUBATION
AFTER IN

DIAGRAM 22

SORBED, 3 MINUTES.





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WEEKLY AVERAGES O

GRAINS PER GALLON

5
4
3
2
1

SEWAGE

B

WEEK ENDIN

SEP OCT NOV DEC JAN

28 12 26 9 23 7 21 4 18
21 5 19 2 16 30 14 28 11 25

GRAINS PER GALLON

3
2
1

FINAL FILTER "B"

B

DIAGRAM 23

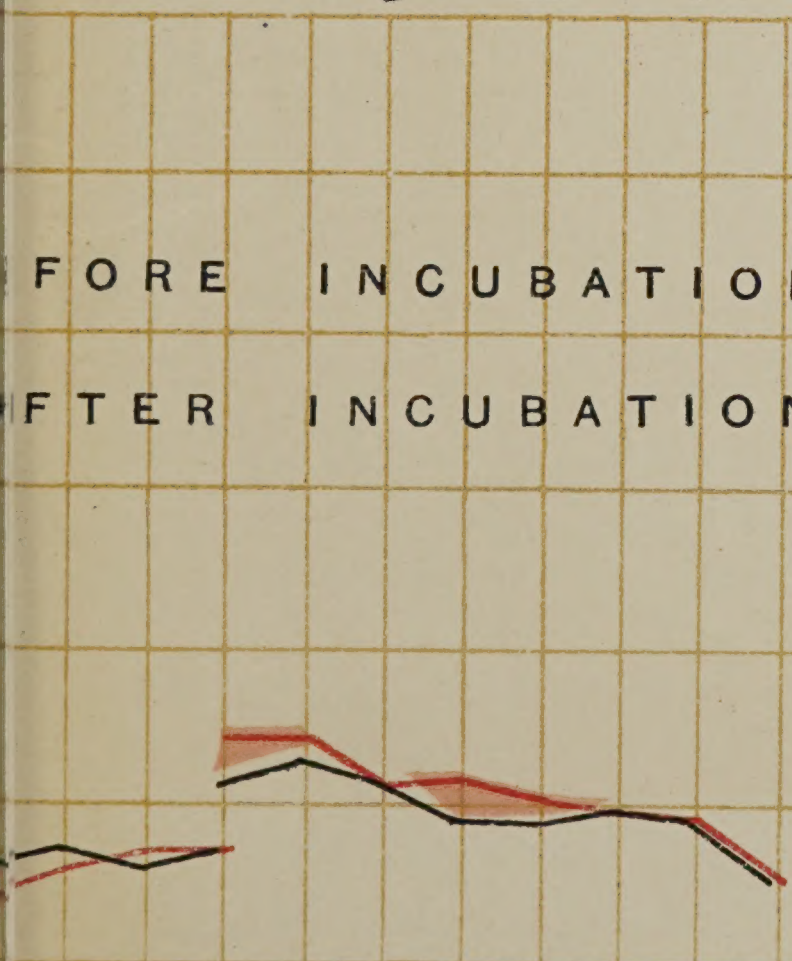
INCUBATOR TEST.

FORE INCUBATION

FTER INCUBATION

EB MARCH APRIL

8 15 22 1 8 15 22 29 5 12



FORE INCUBATION

FTER INCUBATION

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3 0112 070321077